## **ABSTRACT**

Methods for detecting invasive trophoblast antigen (ITA) in biological samples comprise screening the samples for ITA using antibodies that bind to the ITA. The methods are useful to detect pregnancy, trophoblastic diseases, and Down's syndrome in fetuses of pregnant women. Some methods include screening the samples with a plurality of capture antibodies that specifically bind ITA. Chemiluminescent immunoassays are disclosed. The methods may be practiced with the diagnostic kits of the invention.